

Breaking Ground

The OPSC/DSA Connection to California School Districts

State of California • Department of General Services

A Publication of the Office of Public School Construction and the Division of the State Architect

SPRING ☼ 2001

Letter from Luisa M. Park and Stephan Castellanos

The Office of Public School Construction (OPSC) and the Division of the State Architect (DSA) are pleased to present the premier issue of the OPSC/DSA Joint Newsletter, *Breaking Ground*. This newsletter will be published on a quarterly basis, and will preview the collaborative efforts between our offices within the Department of General Services. *Breaking Ground* will provide school districts, architects, design professionals, and consultants with valuable information relating to both the OPSC and DSA processes, policies, and our latest joint ventures in California school construction. Watch for regular sections including our “how-to,” “get to know,” “feature design project,” and a feature article.

For this issue’s feature article, the decision was easy—*Energy!* This article highlights resources and information that school districts can use to assist them and others in meeting the demands of California’s energy crisis. Please do not forget current energy requirements will be changing due to recently chaptered legislation, Assembly Bill (AB) 970, the California Energy Security and Reliability Act of 2000, which will have an impact

on building and modernizing K-12 schools after June 1, 2001. Look for articles regarding these changes in future editions of *Breaking Ground*.



Stephan Castellanos, FAIA
State Architect, DSA

Luisa M. Park
Interim Executive Officer, OPSC

In addition, you may access the OPSC Web site at www.opsc.dgs.ca.gov for more information on energy.

We anticipate that you will find this newsletter a valuable resource. We welcome your input and encouragement as we continue to develop and fine-tune our

joint newsletter. Contact *Breaking Ground* with your comments at breaking.ground@dgs.ca.gov.

For those who look forward to receiving the monthly OPSC *Advisory Actions*, don’t worry. You can still count on receiving these important updates on recent State Allocation Board (SAB) actions.

Luisa M. Park
Interim Executive Officer
Office of Public School Construction

Stephan Castellanos, FAIA
State Architect
Division of the State Architect

Energy Savings Resources

In the face of rising energy costs and a shortage of energy supplies, California’s school districts are more aware than ever of the need to conserve. There simply is no room in the budgets of most districts to accommodate huge operational cost increases due to unexpectedly inflated energy bills. According to a survey conducted by the California Association of School Business Officials (CASBO), 92 percent of responding school districts regard rising utility costs to be a serious to severe problem. Forty percent of the respondents indicated that they expect gas and electric bills to deplete their emergency reserves with the possibility of triggering cuts in classroom spending next year. Facility planners all over the state are searching for answers as they plan, modernize, and construct facilities. The good news is that for the proactive planner, resources are available to help.

The California Energy Commission (CEC) Energy Efficiency Financing Program can provide low interest loans of up to \$2 million for school projects that conserve energy. The loans may be used for a variety of conservation related purposes including heating and air conditioning modifications, lighting projects, energy management systems, and energy generation. A number of California districts including Clovis Unified School District, Los Angeles Unified School District and Live Oak School District

Continued on page 2

OPSC Reminders...

- ▶ **State Allocation Board Meetings***
April 25, 2001 June 27, 2001
May 23, 2001 July 25, 2001
- ▶ **Implementation Committee Meetings***
April 26, 2001 July 6, 2001
June 1, 2001 August 3, 2001
- ▶ **Five Year Plan of Maintenance Needs**
Form SAB 40-1 Due by May 30, 2001
- ▶ **Critical Hardship Applications**
Form SAB 40-5 Due by May 30, 2001 (to be considered for funding Aug/Sep 2001)
- ▶ **Def. Maint. Certification of Deposits**
Oct – Nov: Due annually from the Districts
- ▶ **Annual Certification of Unused Sites**
Due by June 30, 2001
- ▶ **Joint Use Funding Cycle**
July 1, 2001 – June 30, 2002: Period for Districts eligible to participate in the Lease-Purchase Program funding of Joint Use projects for gymnasiums, multipurpose rooms and libraries (SB 1795).
- ▶ **Interest Earned Report (Form SAB 180)**
Due quarterly (March 31, June 30, September 30, December 31) from each county for all districts which have earned interest from the Leroy F. Greene Lease-Purchase Fund.

* Meeting dates subject to change. Check the OPSC Web site at www.opsc.dgs.ca for latest dates and times.



State of California • Department of General Services

BreakingGround

The OPSC/DSA Connection to California School Districts

Editorial Group:

Bruce Hancock, SAB
Carol Shellenberger, OPSC
Lori Morgan, OPSC
Louis Nastro, DSA

Layout, Printing and Distribution:

Office of Public School Construction

Send your comments to *Breaking Ground* at breaking.ground@dgs.ca.gov

Energy Savings Resources – continued from page 1

have already benefited from these loans. One district expects to repay the loan in less than six years using energy savings alone. In addition to the Energy Efficiency Financing Program, school facility planners will want to learn about the CEC Bright Schools Program, which offers technical assistance to school districts to reduce operating costs through energy efficiency. The services offered include new construction design review, evaluation and selection of energy services companies and contractors, and identification of energy saving opportunities in existing schools. The CEC also offers many other programs. Further information, contact telephone numbers and application documents can be found at the Energy Commission's web site at www.energy.ca.gov/efficiency.

The California School Boards Association (CSBA) offers the FlexFund Program, which provides funding for energy conservation projects, among other school district facilities needs. There are a variety of financing and repayment options. To date, the CSBA program has provided over \$88 million to California school districts, community colleges and county offices of education. An application form and further information is available from CSBA at www.csba.org/business/financialservices/flaxfund.htm. Planners will also want to look into CSBA's SmartPower and SmartAudit programs, which are designed to help districts obtain energy conservation services and to make sure they get what they pay for.

Some additional resources include the following:

- The Sacramento Municipal Utility District can provide help on energy issues as well as provide loans and grants within its service area (www.smud.org).
 - The Pacific Gas and Electric Company has information on Title 24 performance requirements for rebates and other energy information (www.pge.com).
 - The Los Angeles Department of Water and Power can provide assistance and information on rebates and energy efficient design (www.ladwp.com).
- If you remember just one resource in the future, remember the Department of General Services' Energy Site. It is a huge storehouse of energy-related services and programs. All the sources listed in this article plus hundreds more are listed there. Although it's placed last in this article, you might want to make it your first stop (www.dgs.ca.gov/energy).
- In addition to the current assistance that is available, the legislature is currently working on a myriad of bills concerning energy conservation and generation. Some of these bills may provide future resources and funding to assist districts with their energy needs. Consult with the school district organizations to which your district belongs to learn the status and content of these important bills, or visit the California Legislative Counsel's site at <http://www.leginfo.ca.gov/bilinfo.html> to review them personally. Remember that changes to Title 24 energy requirements, due to chaptered legislation AB 970, are anticipated to be in effect sometime after June 1, 2001.
- And finally, don't forget that the SAB currently provides additional priority points for state funded school projects that conserve energy, thus increasing the project's chances for funding.
- U.S. Department of Energy has information and links related to energy conservation education and funding (www.eren.doe.gov).
 - California Public Utilities Commission. Information is available on potential grants and loans to Utility Districts and other agencies (www.cpuc.ca.gov).
 - The Office of Energy Assessments has low cost loans available (www.dgs.ca.gov).


Breaking Ground Spring 2001
Office of Public School Construction/Division of the State Architect
Plan No. 10004

Feature Project: Redlands East Valley High


Redlands East Valley High School consists of a 264,000 square foot comprehensive high school located on a 57 acre site. The site slopes approximately 80 feet from east to west. Surrounding land use consists of residential development, agricultural use, and some industrial facilities. Designed to house 2,500 students, the school includes administration facilities, media center, theater/performing arts facility, multi-purpose facility, gymnasium, fine arts building, and various specialized educational classrooms. Site improvements include a pool facility, track/football field, tennis courts, basketball courts, and baseball and softball fields.



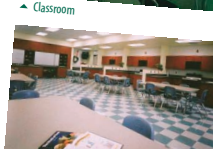
▲ Building Entry



▲ Classroom

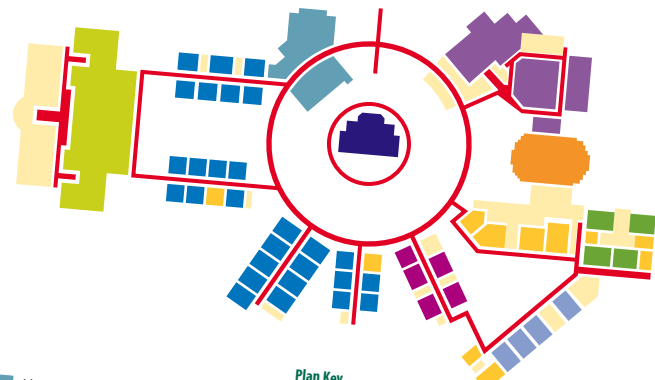


▲ Central Forum



▲ Science Lab

Plan Abstract



Plan Key

- Administration/Office
- Art
- Class Room
- Commons/Cafeteria
- Corridor
- Library, Media Center
- Music, Theater
- Physical Education
- Science Lab
- Team Resource
- Technology, Shop
- Support/Utility

OPSC/DSA Staff

Lore S. Velismolobor Ut alit lam zzrillumy nisi blaore dolenibh eugercillaore dipit velent wis augiame- tum aliquisim zzrit illa commy nim voloreet.

Vel Utpatummo Ionulpute duis nos augait acincipit praesent nim volorem enim iliquam iuscinis ate mag- nibh et lan ute eugait nonulla faccum.

Dolor Sustrud Ea feupsum essequis adigna feugait pratum zzrisciliquip et laorperit, sed dipit pratum ad magna feugait.

Lorpero Con-Utpat Ut lore consed dolore tin henibh ex et, con henisul ulla commodionolor ad molorpera ssenibh eumsandrerate.

Quis Diam Ut ipisim dolor atetummodit aliquat, verosto odignibh enit lorem nulla feuisi.

Consultants

Structural Engineer: Johnson & Neilsen
647 Main Street, Suite 4B, Riverside, CA 92501

Engineer: Dagostino Engineering
329 West State Street, Suite A2, Redlands, CA 92373

Mechanical/Plumbing Engineer: Mathaudhu Engineering, Inc.
3833 Jurupa Avenue, Riverside, CA 92506

Electrical Engineer: M/P Engineers, Inc.
3828 West Commonwealth Avenue, Fullerton, CA 92833

Landscape Architect: RHA Landscape Architects
3612 Mission Inn Avenue, Riverside, CA 92501

Interior and Acoustic Consultant: John von Szelski & Associates
2727 Newport Blvd, Suite 210, Newport Beach, CA 92663

Consultant: Aquatic Design Group
1950 Kellogg Avenue, Carlsbad, CA 92008

Acoustics Consultant: ISDG
222 N. Mountain Avenue, Suite 104, Upland, CA 91786

Food Facilities: Commercial Kitchen Design
1355 Journeys End, La Canada-Flintridge, CA 91011

Photographer: Fred Daly
1850 Fairway Drive #35, Chino Hills, CA 91709

Have Your School Design Showcased In *Breaking Ground*!

In each issue of *Breaking Ground*, the OPSC and the DSA will showcase a new K-12 school design. This feature, created as a "pullout" may be saved for future reference. It will be a resource for school districts to see the latest school facility planning ideas and design solutions approved by the DSA and the California Department of Education within the last four years.

We are looking for design submittals from school districts, architects, or school advocacy groups that will demonstrate an innovative and creative school design that can be featured in *Breaking Ground*. One of our goals is to assist school districts in reducing the time and costs of designing new facilities by facilitating the reuse of facility plans. Furthermore, sharing information allows school districts, facility managers, and business managers to be in the loop

with the latest school designs, manufacturing products, and building alternatives.

With just a small investment of your time, you can showcase your school project by submitting your design information to *Breaking Ground*. These project showcase pullouts will include plan abstracts, construction data, photographs, school district, and architect contact information. *Breaking Ground* will consider all design submittals for publishing; however, we reserve the right to publish submittals at our discretion.

If you have an innovative school design and would like to share it with other school districts, please contact *Breaking Ground* today at breaking.ground@dgs.ca.gov. For specific submittal requirements, contact Tim Lange in the OPSC Multimedia Unit at tim.lange@dgs.ca.gov or at 916.445.0506.

DSA Reminders...

► Field Act Advisory Board Meetings*

Tuesday, April 17, 2001

Tuesday, July 17, 2001

Tuesday, October 9, 2001

► Reporting and Retrofitting of "HCD-type" Relocatable Buildings (SB 1469)

School districts that have not already reported their "HCD-type" relocatable buildings to the DSA should do so as soon as possible. HCD-type relocatables are the non-DSA-approved buildings sometimes used on school campuses.

California law requires that HCD buildings be retrofitted as soon as possible, but no later than August 31, 2002.

Additional information, including assistance with identifying HCD buildings, is available online at www.dgs.ca.gov/dsa — click on "SB 1469 Certification," or call Elizabeth Randolph at the DSA Headquarters at 916.324.5591.

* Meeting dates subject to change. Check the DSA Web site at www.dgs.ca.gov/dsa for the latest dates and times.

Architects... You Have Decided to Submit Your Plans and Specifications in Electronic Format

You have decided to submit your school construction plans and specifications to the OPSC in an electronic format for review and processing. You have accessed the OPSC Web site and reviewed the electronic (AutoCAD) instructions for submittal. Now you are ready! But before you do, the OPSC would like to share several tips that can help you submit your plans successfully without the risk of being returned. By following these tips you will assist the OPSC Plan Verification Team in reviewing and processing your plans quickly, while saving you the time, money, and frustration of having to redo your electronic submittal due to improperly formatted disks and/or missing documents. Most importantly, you are ensuring that the school district's funding application is processed expeditiously for State Allocation Board approval. Both you and the school district benefit!

When submitting your plans in an electronic format, you can use either a CD-ROM, Zip Disk, or 3½" floppy disk. Here is a list of tips to remember when formatting your plans for submittal on a disk:

- Use an electronic format readable by AutoCAD 2000 for Windows 98
- Submit CAD files with an "DWG" extension only
- Do not compress the drawing files
- Include a complete set of electronic files for the school site
- Include an index of the required architectural drawings (name file "index.doc")
- Make sure the file names are cross-referenced to standard title sheet names
- Label disk(s) clearly with the OPSC Project Number and School District Name
- Check to see if your files are readable on an independent computer before you submit

Again, following these tips can assist you in successfully submitting compatible and readable plans and specifications to the OPSC. For complete electronic (AutoCAD) submittal instructions and document requirements, access our Web site at www.opsc.dgs.ca.gov/Programs/cvaca.asp. In addition, the OPSC has released a new guidebook, *Architect's Submittal Guidelines*, which will provide you with everything you need to know regarding plans and specifications submittal. This guidebook was released in March 2001, and is available on our Web site.

Additional good news for designers who submit plans electronically

"E-Government" is also coming to the DSA. The DSA is now conducting pilot electronic plan review projects at its Regional Offices in Oakland and San Diego. CAD workstations for plan review are in place, and training has begun. Pilot projects will be submitted for review in mid-April, and final closeout of the pilots is expected to take place by June 2001. The DSA is also researching an electronic forms submittal process that would allow "paperless" form submittal for school plan review. Watch for updates in upcoming issues of *Breaking Ground*.

Get to Know... DSA Fire & Life Safety

Each issue of *Breaking Ground* will introduce a unit of the OPSC or DSA. Readers will have a chance to "Get to Know" the staff who work on their projects, and they'll get a brief look at what life is like on the other side of the school construction counter. This issue features the DSA's Fire & Life Safety team.

Every commercial and residential construction project is reviewed by a local (city or county) building department before it can be built and the DSA performs this vital service for California's public schools. The DSA Fire & Life Safety (known as "FLS") staff provide review and consultation services for the Fire & Life Safety-related aspects of school construction projects. The FLS staff perform their work at the four DSA Regional Offices: Oakland, Los Angeles, Sacramento, and San Diego.

Breaking Ground caught up with several members of the DSA's nine-person FLS team and asked them about their jobs and FLS in general.

Paul Allaire holds a degree in Fire Technology from San Jacinto College. Allaire particularly enjoys assisting the design professionals he meets working at the DSA Sacramento Regional Office.



Paul Allaire and Jon Dowell – Sacramento

"Today's designers are exceptionally well educated, but they aren't always familiar with the special requirements of schools," says Allaire. "A typical high school can have an auto shop, other industrial education shops, a photo lab, chemistry labs, kitchens, large assembly areas (theaters, cafeterias, and gymnasiums), and multi-purpose rooms. Each of these has its own unique potential for fire and/or panic situations. At DSA we have to be familiar with each and every one of them, and be able to communicate the relevant code requirements to the design professionals."

Allaire has been in the FLS field since 1974, and he recently celebrated his fourth anniversary with the DSA. When not involved in fire-related work, Allaire loves to fish. "I'll fish for anything that swims," says Allaire.

Jon Dowell been with the DSA since 1993, and he's been a fire professional since 1985. Dowell holds a BS in Fire Protection Administration from California State University

Los Angeles. He enjoys reviewing school projects because it allows him the opportunity to utilize the entire range of building codes related to fire and life safety—the California building, fire, mechanical, and plumbing codes. "We (DSA) really are like the building department for California schools," said Dowell.

In his off-duty hours, Dowell attends to his extensive collection of fire department memorabilia that includes antique badges and firefighter's certificates. Dowell also serves as a "paid call" firefighter for the foothills town of Nevada City, California.

Brian Heyman

grew up attending Los Angeles Unified School District schools. Heyman works at the DSA Los Angeles Regional Office. "I enjoy a unique connection to the local community," said Heyman. "Having been born and raised in LA, it's easy for me to appreciate the wants and needs of our big-city districts." Heyman's community involvement extends to a seat on the Los Angeles County Fire Department's Technical Advisory Group, a position he's held since 1989.



Brian Heyman and Ed Vasquez – Los Angeles

Heyman's background includes a stint with the U.S. Air Force Fire Service, and fire protection work for Lockheed Corporation. His work as a fire inspector led to a job at the DSA. He's been involved in fire prevention for over 25 years, and he started with the DSA in 1993. When not involved in FLS work, you can find Heyman hiking the trails of Angeles National Forest.

Heyman's background includes a stint with the U.S. Air Force Fire Service, and fire protection work for Lockheed Corporation. His work as a fire inspector led to a job at the DSA. He's been involved in fire prevention for over 25 years, and he started with the DSA in 1993. When not involved in FLS work, you can find Heyman hiking the trails of Angeles National Forest.

Erin Stroub

appreciates that her job in the DSA/FLS provides a vital link between public (state, local school districts) and private concerns (students, parents, and community). "We're not isolated from community the way some local building departments can be," says Stroub.



Ed de Cossio and Erin Stroub – Oakland

Continued on back page

DSA Fire & Life Safety – continued from page 3

Stroub has an extensive background in fire prevention, having both designed fire sprinkler systems and worked in loss control and risk analysis. She's been in fire-related work since 1979, and she's been with the DSA for two-and-a-half years.

Having worked on the design of schools, Stroub feels she brings valuable professional objectivity to the projects she reviews. "I have a feel for what goes on on both sides of the table," she says.

David Shay is the DSA's newest FLS Officer, with just over two months on the job. That doesn't mean he's any less experienced—in fact, Shay's been a Fire & Life Safety consultant since 1984, and he recently completed his EIT certification in preparation for becoming a registered Fire Protection Engineer—the highest professional level in FLS recognized by the State of California.



Efren Abrego (seated), David Casey, David Shay – San Diego

Before joining the DSA, Shay was employed by Schirmer Engineering, one of the two largest and most respected FLS consultants in the U.S. "As the principal engineer in the local Schirmer office, I was given the school projects contracted by DSA," said Shay. I was making a lot of visits to the DSA San Diego office, and Regional Manager Mahendra Mehta kept teasing me, saying, 'Why don't you come work for us?' I decided to take him up on it and I have been enjoying the work immensely."

Being brand-new to the public sector, Shay brings a unique point-of-view. "We call what we do 'plan review,' but it's much more than that—it's really *peer review*. In the private sector, we'd always peer review each other. DSA provides this essential function for California's schools." Shay also provides a bit of wisdom for all DSA clients: "Some design professionals get the mistaken idea that 'review' means we're somehow picking on them. They couldn't be more wrong. Experienced professionals and responsible owners *demand* peer review."

Shay is an avid hiker. He's explored Grand Canyon, Yellowstone, and Yosemite National Parks.

FLS professionals that are as highly-qualified and experienced as the DSA FLS team could choose to work anywhere in the fire protection industry. Why do they choose the DSA? Erin Stroub sums it up: "We're working to ensure the safety of California's school children." You can't do any better than that for job satisfaction.

The OPSC/DSA Connection to California School Districts



State of California
Gray Davis, Governor

State and Consumer Services Agency
Aileen Adams, Secretary

Department of General Services
Barry D. Keene, Director
Rosamond Bolden, Chief Deputy Director
Karen McGagin, Deputy Director

Division of the State Architect
Stephan Castellanos, FAIA, State Architect

Office of Public School Construction
Luisa M. Park, Interim Executive Officer

State Allocation Board
Bruce B. Hancock, Assistant Executive Officer